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ABSTRACT

This study reports the efforts made at a midwestern university toward integrating a stress management and prevention element into the teacher preparation program. The program was planned to consist of 4 sessions, which varied in length from 60 to 90 minutes each over a 4-week period. Twenty-eight students volunteered for the training program, and were randomly assigned to experimental and control groups. The stress management and prevention program was found to have a number of positively related elements: (1) it was relatively brief and not perceived by the participants as being intrusive or overburdening on their already full schedules, and yet was able to present a variety of usable alternative coping skills; (2) the program employed one faculty member and four doctoral students as trainers, keeping faculty time to a minimum and affording the four doctoral students a supervised practicum experience in a highly relevant area; (3) the inter-divisional nature of the undertaking seemed to foster mutual cooperation which may lead to better resource integration in the future; (4) the relatively high frequency of the reported use of the coping skills suggests that a considerable transfer of learning occurred with the participants; and; (5) the program was perceived as having both sufficient depth and smoothness to be evaluated positively by the participants.
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Integrating a Stress Management and Prevention
Component in Teacher Preparation

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Abstract

This article reports on efforts toward the development of a systematic stress management and prevention component for integration in teacher preparation programs. The component was evaluated with the use of both treatment and control groups as to reported levels of anxiety, as well as the perceived value and utilization during the intern teaching experience. Semantic differential and open-ended evaluative measures showed positive results. Recommendations are provided.

Integrating a Stress Management and Prevention

Component in Teacher Preparation

Despite the efforts made during the past decade to address the problem of stress among teachers, teaching continues to be recognized and identified as a stressful occupation (2; 22). While demands, expectations and pressures on the young teaching professional are accelerating, there appears to be no accompanying refinement of psychological management skills and coping strategies, nor attention to affective education, in most teacher preparatory training (4). This assertion is attested to be a recent review of ERIC listings for the period of 1983-1988 utilizing the descriptors of "stress management" and "student teachers". The authors' search identified only four publications, of which only two chronicled empirical work. It seems the conclusion that Gold (12) arrived at still holds true today, i.e., that the majority of teacher preparation programs do not prepare student teachers to cope with stress in any systematic fashion and that there is no standardized treatment plan and only a limited number of empirical investigations dealing with this matter.

The literature of teacher stress suggests that while stress starts taking its toll as early as the first year of teaching (13; 19; 20), regardless of academic ability (13), it is first experienced at excessive levels during student teaching (1; 5). While other research does not support the notion that the majority of student teachers are experiencing excessive stress, the indications are consistent that a significant number of individuals

do (16). Further selective identification of this population is afforded through Albertson and Kagan's study (2) of dispositional traits and attitudes as predictors of the highly stressed. It was their findings that those who described themselves as generally anxious, impatient, and pressured also indicated that they would be highly stressed by every problematic aspect of teaching assessed. Further explication of predisposing factors is provided by Block's five-year survey of west coast teachers (3). The findings were that teachers who were obsessional, passionate, and idealistic — which tend to be characteristics of the young — were more prone to the "battered teacher" syndrome.

Gold's investigation of the literature (12) highlights the severity of the phenomenon by concluding that the young student teacher has less insulating life experiences to draw upon, and consequently is at an overall greater risk for emotional exhaustion and depersonalization effects. Left unaddressed these factors may quickly snowball in the experience of burnout and subsequent exit from the teaching field. The research of Bowers et al. (4) largely echos this finding by documenting high levels of concern among beginning teachers about self-adequacy. In fact, concerns with self among beginning teachers is common enough in occurrence to be conceptualized as a developmental phase in the evolution of the teacher. Yet with so little attention given to the emotional and psychological readiness of student teachers, it should not be surprising to find that most teachers report feeling inadequately prepared for the stress of teaching (11). Given the added finding that first-year teachers' perception of their professional training as highly effective is a significant predictor of fewer responses

indicative of burnout (13), it is logical to conclude that teacher preparatory training could be significantly enhanced through the development of an effective stress management and prevention component.

The purpose of this article is to report on the efforts made at a midwestern university toward integrating a stress management and prevention element into the teacher preparation program. While much of this work remains developmental in nature, with most of the evaluative work conducted with rather small groups, positive evaluation feedback and results show such promise that it was decided to share our cooperative efforts for the benefit of others in the field.

Initial Considerations

At first, a search was made for exemplary models. It was soon discovered, however, that the literature has not been systematic in dealing with the stress phenomenon and no comprehensive models were located. The literature did afford direction in designing a model with thrusts around the following content areas: (1) self-assessment of stressors and current coping strategies (2); (2) psychoeducational, didactic material concerning stress and ameliorative factors, e.g., nutrition and physical activity (15; 5); (3) and experiential training in alternative coping strategies, e.g., relaxation exercises, examining cognitions, role rehearsal and clarification, and developing supportive environments (16; 10). We were seeking to be holistic and comprehensive, yet with the flexibility for tailoring the program to individual needs

through individual self-assessment of life style and individual choice and goal-setting as to the areas where change might be helpful. Further, as we were involved in program development, we were interested in thoroughly evaluating the model, primarily through participant feedback, to allow for refinement the material and methods of presentation.

After deciding on the basic framework of the proposal, students in both the elementary and secondary teacher training programs were surveyed concerning their needs, suggestions, and interest in the offering. We were operating within the constraints that the proposed training would be offered as a voluntary supplement to the regular curriculum, without academic credit being afforded, and be provided within a five-week block of time when the students would be on campus immediately preceding the student teaching internship. The timing of the training was found to be optimal as available research concurs that student stress level is highest at the beginning of the student teaching experience (4; 16). More than one-half of the students surveyed (N=54) expressed a definite need and interest in the offering and suggested scheduling and topical interests.

Following the student survey, the program was planned and developed to consist of a total of four sessions, which varied in length from sixty to ninety minutes each over a four-week period. Four doctoral students from the counselor training program were recruited to assist in providing the training under the coordination and supervision of the first author.

Program Overview

Description of Sessions. All of the training sessions were held on campus in a large, carpeted conference room that allowed for seating during didactic presentations as well as cleared space for the exercises that required sitting or reclining on the floor. The setting was thought to be conducive to the purpose of the training. All of the sessions were held in the early evening with the first and last session lasting one hour, while the second and third sessions required one and one-half hours.

The first session focused on didactic material concerned with the definitions of stress, signs and sources of stress, the physiology of stress, and typical response patterns. Both the positive and negative aspects of stress were examined and typical responses were viewed in terms of their short-term and long-term advantages and disadvantages (17; 10). The remaining one-third hour was devoted to experiential exercises of systematic muscle relaxation which incorporated deep breathing, and also to a positive imagery exercise of approximately ten minutes in duration (8; 25). The homework assigned was to practice deep breathing and relaxation training for at least twenty minutes each day for the next week as well as to assess personal beliefs concerning stressors encountered.

The second session commenced with a review of the homework assigned with group problem solving where difficulties were encountered. Praise and support for successful homework completion was also provided by the group. After roughly ten minutes, an exercise was then provided for the next thirty minutes which involved three

elements: an imaginary hot tub experience to induce relaxation, a self-guided imaginary positive experience with student teaching, and a guided use of imagery to visit the "Wise One" who shared secrets of teaching effectiveness and stress management (8). After processing this experience with the group, the self-test for stress signals was administered followed by the "wheel of life" exercise which affords a holistic perspective on stress (14). These activities centered around personal self-assessment of each individual's current life style and coping devices. Goal setting then followed for areas where the student perceived a need for change in either their practices or beliefs. The session ended with exercises in deep breathing, meditation, and the "three minute break" (14; 25). Practicing these techniques each day for thirty minutes was given as the homework assignment.

Once again, the third session began with a review of the assigned homework. Discussion and encouragement of regular physical activity and good nutrition followed. The stress prone diet (14) was reviewed and group interaction elicited. The time allotted was forty-five minutes. An extended experiential exercise followed which used guided imagery for the purpose of identifying individualized relaxing images after attaining a self-induced relaxed state. While relaxed, an extended role rehearsal was encouraged for the purpose of giving the student numerous positive experiences of successfully coping with various imagined problematic situations which might arise during student teaching. This last exercise represents a modification of a suggestion made by Gold

(12), and it was reinforced by assigning a similar homework exercise of relaxation coupled with positive imagery.

The fourth session began with a review of their assignment, which incorporated group problem solving and support. The sources of student teacher stress identified in the literature (1), as well as those identified by the participants, were discussed. About one-half of the session was devoted to group problem solving aimed at devising alternative coping strategies. Subsequently, a brief didactic presentation was afforded concerning Burns (6) ten cognitive distortions and Ellis's (9) A-B-C's of emotion. This presentation centered on how stressors are perceived in light of the individual's belief system and whether the beliefs are rational or not. A volunteer from the group was used during a live demonstration, of approximately twenty minutes, to model the process of self examination and disputation.

Participants. Twenty-eight students, thirty percent of the total population of all elementary and secondary student teachers, volunteered for the training program. Given that the training was conducted on the students' own time and at night, the authors view the 30% as surprisingly high and indicative of the students' perceived need. From this sample, one-half were randomly assigned to participate in the program and the other half were assigned to a control group. Both groups were equivalent in proportional composition of females (79%) and males (21%). The groups were similar as to the average age with the training group having an average age of 24.2 years while the control group had an average age of 22.8 years.

Instrumentation and Data Collection. Both groups were administered three anxiety measures prior to and again at seven weeks following the training experience: Brief Fear of Negative Evaluation (BFNE) (24), Audience Anxiousness Scale (AAS) (18), and the State-Trait Anxiety Inventory (STAI) (21).

BFNE. The BFNE is a shortened version of the FNE scale and is composed of items that reflect concern in respect to how others might evaluate one's social behavior. Reliability and validity estimates are adequate for use of the instrument in research settings.

AAS. This scale is a measure of social anxiety associated with performing in front of an audience. Evidence of reliability and validity suggest that the instrument would be a useful measure of this type of stress-related situation.

STAI. The STAI is a measure of two forms of anxiety: state anxiety and trait anxiety. Trait anxiety refers to an individual's overall proneness toward perceiving stressful situations as threatening, while state anxiety tends to fluctuate depending on the specific situation. The stronger the trait the more likely the individual will experience elevated states of anxiety in stressful situations. The STAI is widely used in both research and clinical settings.

Reliability and validity have been shown to be moderate to strong in most situations.

While none of the three anxiety measures focus specifically on the teaching setting, it was felt that they would provide useful data on the effect of the program as well as be helpful for subsequent planning.

At post-testing a Session Evaluation Questionnaire (SEQ) was administered to the group who participated in the four sessions. It was aimed at assessing the degree to which the coping skills taught had been used by the participants, their overall evaluation of the program itself, as well as their suggestions as to ways of improving the program. Because the subjects were student teaching off campus following the training, it was difficult to obtain more extensive feedback. The SEQ was the primary evaluative instrument and consisted of 11 bipolar adjectives presented in a 7-point semantic differential format. The adjectives were selected to measure two evaluation dimensions. The two dimensions, were depth and smoothness (7), and their accompanying adjectives are presented below:

<u>Depth</u>	<u>Smoothness</u>
Valuable — Worthless	Easy — Difficult
Deep — Shallow	Relaxed — Tense
Full — Empty	Pleasant — Unpleasant
Strong — Weak	Smooth — Rough
Special — Ordinary	Comfortable — Uncomfortable

Participants responded to each pair of adjectives in respect to their perception of the sessions. For example, the pair of adjectives of Valuable — Worthless:

Valuable _ _ x _ _ _ _ Worthless

7 6 5 4 3 2 1

the "x" would be scored as a "5". Thus, a highly negative evaluation would be scored "1", a highly positive was scored "7", while a neutral evaluation was scored "4". Evaluations of each pair of adjectives was then summed for each participant for a total score on the "depth" of the sessions and for the "smoothness" of the sessions.

Twelve of the fourteen session participants returned the questionnaire with one of the participants being absent at the time of evaluation and two others failing to complete the full battery of instruments. In addition to the semantic differential scale, the subjects who participated in the sessions furnished information on which stress reduction techniques they used and how often. They also responded to several open-ended questions in respect to the program.

Results.

The results of the semantic differential scales are shown in Table 1.

Place Table 1 About Here

As may be observed, the means for both the depth and smoothness dimensions were substantially toward the positive side with the standard deviations showing relatively little variation. The uniformly positive nature of these findings was further supported by the subjective open-ended evaluative information furnished by a tally of the use of the techniques during their student teaching experience. The tally revealed that 91% of the participants either sometimes or often used the guided imagery and progressive muscle relaxation techniques; all of the participants reported using the positive self-talk method and the 3-minute break was likewise utilized by all of the participants at least sometime during their student teaching.

Evaluation of the open-ended questions, concerning both the most helpful and least helpful aspects of the program as well as suggestions for improvement, revealed that the variety of methods taught and practiced was the most helpful aspect. The majority of participants cited specific relaxation exercises as being the most helpful. Two particular remarks concerning what was perceived as the most helpful were quite revealing: "Learning that I could relax," and "Finding out that the other students were feeling the same as me, and talking about it."

The reported least helpful aspects included the classlike setting (the blackboard and desk-like chairs had not been removed), unneeded information about the causes of stress, and repetition of techniques previously learned. Several participants reported that the program could be improved by adding more sessions with more experiential opportunities. Other suggestions for improvement included access to tape recordings

of the sessions to aid in practice at home, and more opportunities for group practice of the exercises.

Table 2 presents the results for the three anxiety scales. It can be observed that anxiety was less on all the post-test measures for both groups. Dependent samples t-tests showed significant reductions ($p < .05$) for both groups except on the BFNE scale. These results were not anticipated since the literature suggests a second peaking of anxiety approximately one-half way through the student teaching experience (16; 4), which corresponded closely with our date of post-testing.

Place Table 2 About Here

Of greater interest was whether the experimental group reported less anxiety than the control group when comparing post-test scores. It can be seen in Table 2 that on all four measures the experimental group did show less anxiety as represented by the post-test means. However, observation of the pre-test means indicates that the experimental group also had less anxiety than the control group initially on each of the measures except for the AAS scale. In order to control for the initial differences, as well as take into account the multiple dependent variables, a single factor multivariate analysis of covariance (MANCOVA) between the groups on the post-tests was performed. Covariates were the four pre-tests.

Table 3 provides the unadjusted post-test means and the adjusted means that resulted from the MANCOVA. It can be seen that the experimental group means were adjusted upward on the first three measures, while the control group means were adjusted downward on the same measures. On the AAS the control group was adjusted upward and the experimental group moved down somewhat.

Place Table 3 About Here

The MANCOVA, performed on the adjusted means, was not significant ($p < .51$, $df = 4,14$). Thus no statistically significant differences between the groups was found after adjusting for the initial differences.

It should be pointed out that the small sample sizes, accompanied by the rather large within group variation as represented by the standard deviations, made the power of the statistical test quite weak with little likelihood of finding statistical differences. The fact that the observed differences still favored the experimental group after adjustment was encouraging.

Discussion and Recommendations

The stress management and prevention component presented, while recognized as preliminary, nevertheless was found to have a number of positively valued elements that recommend it to others involved in similar efforts. First, it was relatively brief and not perceived by the participants as being intrusive or overburdening on their already

full schedules, and yet was able to present a variety of usable alternative coping skills. The results, in fact, point toward extending the number of sessions provided. By refining and continuing the elements that were effective, plus adding more sessions, would almost certainly result in a more effective and needed program component. Further, from a research design and statistical point of view this would also increase the probability of supporting research hypotheses that focus on reducing the stress related to student teaching. Although no statistically significant differences were found in the present study, estimated effect sizes as represented by the post-test differences ranged from .20 to .50, thus suggesting low to moderate effects and further reinforcing the likelihood that strong stress reducing effects could be achieved economically by continued program development.

Second, the program employed one faculty and four doctoral students as trainers. This kept faculty time to a minimum and afforded four doctoral students with an excellent supervised practicum experience in a highly relevant area. All of the doctoral students had formerly served in area human services agencies, thus for teacher preparation programs lacking doctoral students community service agencies may well afford an acceptable alternative. Third, the inter-divisional nature of the undertaking seemed to foster mutual cooperation which may lead to better resource integration in the future. Fourth, the relatively high frequency of the reported use of the coping skills suggests a considerable transfer of learning occurred with the participants. Fifth, the

program was perceived as having both sufficient depth and smoothness to be evaluated quite positively by the participants.

As student perceptions of their training as highly effective is clearly correlated with reduced indication of burnout among first-year teachers (13), as sampling indicates as many as 27% of first-year teachers admit to contemplating quitting the profession (23), and as the burnout syndrome is primarily emotional or affective in nature (13), the implications of a stress management and prevention component in teacher preparation are truly significant. While the short-term effects were viewed as encouraging, further study is indicated.

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TABLE 1

Means and Standard Deviations of the Depth and Smoothness Dimensions of the Session Evaluation Questionnaire

Dimension	Mean	SD
Depth	5.30	.91
Smoothness	6.13	.68

Table 2

Descriptive Statistics and Dependent Samples t-tests for the
Anxiety Scales

	Experimental					Control				
	Pre		Post		t	Pre		Post		t
	Mean	SD	Mean	SD		Mean	SD	Mean	SD	
STAI	36.0	7.1	29.7	5.9	*	38.7	10.1	32.8	8.2	*
STAI2	37.1	6.9	31.3	5.8	*	42.1	8.9	34.8	8.4	*
BFNE	38.2	9.2	33.9	6.3	ns	40.1	9.4	36.9	8.1	ns
AAS	44.3	8.9	34.6	12.3	*	42.3	9.4	36.9	12.3	*

* $p < .05$

TABLE 3
Posttest Unadjusted and Adjusted MANCOVA Means

	Experimental		Control	
	Unadjusted	Adjusted	Unadjusted	Adjusted
STA1	29.7	30.1	32.8	32.3
STA2	31.3	32.0	35.9	34.5
BFNE	33.9	35.4	36.9	35.6
AAS	34.6	32.9	36.9	39.4